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I.
BELLADONNA.

Its preservative Power against Scarlet-fever.

By Drs. TAYNTON and WILLIAMS.

DURING the months of April and May the scarlet fever was very prevalent in this town and neighborhood, and in many cases it proved fatal. Our attention was called by a friend to a notice in the *Lancet* of the 2d of May, "on the prophylactic powers of belladonna against scarlet fever, by Hufeland."

We were at that time attending in a boarding-school, where the disease had attacked twelve of the boys, many of whom had been most dangerously ill, but none had died. There still remained several boys (perhaps twenty) who had not taken the infection; also four young children of the master's, and several servants.

We immediately commenced the use of the belladonna, in the exact manner and dose advised by Hufeland. *Only* six or seven persons in the house took the disease *afterwards*, and in every instance it assumed the mildest form.

In another small school we were called to visit a child about two years old, who had been attacked the evening before. The disease was of the most malignant character, and the child died on the following morning, the third day from the attack.

The house is a very small one. There were in it three other young children and five boarders, and a servant girl. The belladonna was faithfully administered, and not *one* individual took the disease.

We will not offer any conjecture on the *modus operandi* of the belladonna, or whether it did or did not prevent the other members of these families from taking the disease. The facts are stated exactly as they occurred, and we entreat our medical brethren to make trial of the belladonna whenever a favorable opportunity offers.

The following is the manner of giving the medicine:—Three grains of extract of belladonna dissolved in three ounces of proof spirit. Of this solution as many drops are to be taken as the patient is years old, twice a day.

As our readers may not be fully aware of the circumstances alluded to in the above paper, we subjoin some observations on this subject, made by Professor Koreff, in a letter to the late M. Laennec, published in the *Bulletin des Sciences Medicales* :—

"Observation clearly proves," says he, "that the belladonna, taken for some time, either in powder or in extract, produces, especially in infants, a redness of the skin, which is sometimes transient, but at others more durable; dryness of the mouth, with a sense

of heat in the throat; dilatation of the pupil; anxiety; and occasionally swelling of the sub-maxillary glands: symptoms having a great resemblance to those which accompany the eruption of scarlatina. The effect of the belladonna has also this in common with scarlatina, that neither of them produce the redness of the skin invariably, whilst the symptoms about the throat are always present. I confess to you, however, that all these analogies did not appear to me sufficiently strong to persuade me that in this plant was really to be found a preservative against scarlatina, similar to that which the cowpock affords against variola. It was not till I had received the authority of the celebrated Soemmering, who informed me that he had obtained the most satisfactory results with it when the disease raged epidemically, that I determined to employ it. This malady, accompanied by the most unfavorable symptoms, and having entirely changed its usual character, was at that time producing ravages almost as fatal as the contagious typhus. I then, for the first time, had the happiness to protect from this dreadful contagion almost all those who took the belladonna with a little perseverance, and of these there were many thousands. Since that time I have never lost sight of this discovery, which becomes the more valuable as the scarlatina has increased during the last thirty years, both in violence and extent, in many countries; and I have always found the same effects in different climates, and in epidemics of opposite characters. Many other physicians have equally confirmed the preventive powers of this plant, and the German journals are daily filled with proofs of a benefit which, with respect to some

countries, equals that of vaccination. In France, the capital and the provinces of which appear less subject to these fatal epidemics than Germany, Switzerland, the Tyrol, Poland, and the north in general, less attention has been given to this discovery, and it has been rejected, it must be said, too lightly, and without any sufficient examination, as may be seen in the article *Belladonna* in the *Dictionnaire des Sciences Medicales*. I only remember a single observation on this important subject, by Dr. Meglin,* who gives an account of a trial which he gave to this preservative during an epidemic of scarlatina at Colmar, and which confirms all the assertions of the German physicians. The absence of present danger is, perhaps, the cause of this indifference towards a discovery, which, important in itself, might also be fruitful in results applicable to other diseases. At present, however, I shall confine myself to an account of the results which have been ascertained (by repeated observations, and by a great number of individuals placed in very different circumstances), without incurring the reproach of having proceeded in a manner not sufficiently rigorous.

* * * * *

" The powder mixed with sugar, or the extract made very carefully from the juice of the recent plant, are employed after the following formulæ:—Extract of belladonna three grains, dissolved in an ounce of cinnamon water. Powder, or root of belladonna, two grains, mixed with drachms of white sugar, divided into sixty doses. From half a dose to a whole one is given to a child, from six months to two years old, four times a day;

* *Nouveau Journal de Medecine*, 1821.

to children from three to six years old, from a dose to one and a half ; to those from six to nine, two, to two and a half ; to those from ten to twelve, three, to four and a half. Of the solution, a drop is given for every year of the child's age, once a day and fasting. Observation has shown that, when the epidemic is very fatal, or the intercourse with the patients very frequent and intimate, it is prudent to increase the dose a little. It has not yet been possible to determine, in a satisfactory manner, the length of time which is necessary to eradicate, by this remedy, the susceptibility to the contagion. Everything leads us to believe that the remedy, if used during a time too short to ward off the contagion, moderates very much the malignity of the disease. We know for certain that the remedy does not permanently overcome the disposition to scarlatina ; and it is necessary to resume its use on every occurrence of an epidemic. We have always observed that the most intimate communication with the sick does not produce the disease, provided the medicine has been employed eight or nine times previous to being exposed to the contagion, and continued to the period of desquamation ; a circumstance important to nurses. It appears more certain to begin with rather strong doses in order to guard against the first impression of the contagion, and to diminish the quantity after a few days. No sensible effect has been observed to follow the continued use of this small quantity of belladonna. Up to the present time, neither season nor locality, nor any other circumstance, has appeared to diminish the preservative effect of this plant.

* * *

" Do not believe, my learned colleague, that these results have

been too lightly deduced, or from a small number of individuals, or from epidemics of little violence. It is from entire provinces,—from cities affected with this terrible scourge,—from epidemics the most fatal, in all seasons, and in localities the most diversified,—on individuals of every age and of every condition, that observations have been made with the greatest accuracy, and have led to the above results."—*Lon. Med. Gaz.*

II.

OPERATION OF MORPHINE.

*Experiments on the Operation of Morphine on the Human Body in a state of Health.**

It is now some twenty years since a talented physician, still practising in the modern Athens, was quizzed a little in consequence of entertaining a number of his brethren, once or twice a week, —not with tea and cards,—but with tincture of digitalis ! The parties assembled and commenced the beverage, each keeping a finger on the pulse of his neighbor, in order to determine the physiological operation of foxglove. The result is well known. Digitalis was proved by *direct experiment* to be a strong stimulant; although since that period the profession has doggedly adhered to the vulgar opinion that the drug is a sedative, and employ it accordingly. A somewhat similar party was lately formed at Turin, consisting of Messrs. Beraudi, Rebrini, Crispo, and Allinio, for the purpose of taking the acetate of morphium, and thus ascertaining its effects on people in health. These four

* We alluded to these experiments in a former No. This more minute history of them is from the *Med.-Chirur. Review*.

gentlemen met on the 28th of September last, having previously dined, and commenced their experiments.—At three o'clock, M. Allinio, aged 22 years, of bilious temperament, and whose pulse was at 66, swallowed an eighth of a grain of the acetate in some distilled water. He had scarcely taken the medicine when he felt a bitter and somewhat acrid taste in the back part of the throat. In five minutes there was severe pain in the epigastrium, and propensity to sleep, with somewhat laborious breathing. At the end of twenty-five minutes the same phenomena continued. At thirty minutes there was profuse perspiration, with dilated pupils, and pulse at 94. At thirty-three minutes there was heavy drowsiness, with pain about the frontal sinuses. At fifty minutes the lips were livid, the face flushed, the conjunctivæ injected, severe pain in the frontal bone. At fifty-two minutes, pains in the bladder, physiognomy stupid, eyes sparkling, urgent thirst, sense of extreme lassitude in the inferior extremities. At a quarter past four o'clock there was pruritis of the skin, continual pains in the genito-urinary organs, and weight in the forehead. These symptoms continued till nearly seven o'clock, when severe pain in the epigastrium was followed by vomiting. No sleep took place till two o'clock the next morning, when the experimenter fell into profound repose till six, when he awoke with obtuse pain in the head, and soon afterwards had two alvine evacuations.

The other three gentlemen took the acetate, some in larger and some in smaller doses, at the same hour. Two of them were

affected in a manner not particularly different from that already described. One of them, however, experienced very little else than an acceleration of the pulse to 108 in the minute. In the course of a couple of days the experiments were repeated, but on an empty stomach. The symptoms were not precisely those which followed the medicine taken after food, but yet they were not materially different, and need not be detailed. The experiments were afterwards repeated with still larger doses of the medicine, and a corresponding degree of intensity in the symptoms.—We are not aware that much useful information is to be collected from these experiments. The Northern digitalis-sippers came to the conclusion that foxglove was a stimulant;—if we may judge by the symptoms above described, the Italian morphine-eaters have a fair right to infer that morphine is an irritant; for certainly its effects were anything but soothing.

One thing we would hint to our juvenile experimenters, namely, that medicines, when taken *in health*, produce very different effects from those which result from the same remedies taken *in diseases*.

III.

TREATMENT OF HOOPING COUGH.

Observations on the Treatment of Hooping Cough, and on the Use of Sulphate of Quinine in that Disease.

By a SURGEON.

THERE were sixteen children on board a ship returning from India, who became affected with hoop-

ing cough. There is nothing to remark in the history of the symptoms; but the account of the treatment is not destitute of interest.

" When unequivocal symptoms of the disease appeared, doses of ipecacuanha, according to the age of the patient, were given night and morning, so as to produce full vomiting. In the intervening time, a mixture of antimonial wine, laudanum, and sulphate of quinine, made into a draught with syrup and water, was given thrice a day, at intervals of five hours. The dose for a child of two years was three drops of the antimonial wine, one of laudanum, and half a grain of quinine. When the first, or contagious stage, was over, the quantity of the two former was diminished, while the latter was increased. Burgundy pitch plasters were applied to the breast, and between the scapulæ. The bowels were kept moderately open by calomel and rhubarb; the diet was light and nutritive. This treatment was generally successful in about a month.

" There was an interesting boy of three years who suffered extremely. The convulsive paroxysms were violent, and the quantity and tenacity of the mucus such as threatened suffocation. He was reduced to such a degree, that (to use his nurse's words) he was a 'mere bag of bones;' yet, by a steady perseverance in the above treatment, his recovery, though late, was yet complete. Several expedients to divert his attention, by play, toys, &c., were of use as auxiliaries. The quinine in the second stage was decidedly beneficial; and it is in this stage, where the disease is supposed to remain in the system merely from

the power of habit, that the exhibition of tonics, and above all the quinine, is indicated.

" I was induced to make trial of this medicine from the great approbation with which Dr. Cullen mentions the virtues of Peruvian bark in this disease. ' I consider the use of this medicine,' says he, ' as the most certain means of curing the disease in its second stage; and, when there has been little fever present, and a sufficient quantity of the bark given, it has seldom failed of soon putting an end to the disease.'* In the cases that came under my observation, there was little or no fever; and I should think, from the small bulk and the soluble nature of the quinine, that a sufficient quantity can be given, without the inconveniences attending the exhibition of the bark.

" I have said that the quinine, in the second stage, was decidedly beneficial: it certainly appeared to me so; yet, perhaps, I ought to qualify the expression. In estimating the effect produced on diseases by remedies, it is difficult to determine with precision the exact share which these have, apart from adventitious circumstances, in bringing about a favorable termination. In the present instance, the state of the atmosphere appeared to exercise considerable influence over the disease. During moist hazy weather, the expectoration was more copious and viscid, and difficult of separation. When the air was hot and dry, it was scanty, the cough more distressing, and in one or two instances streaked with blood. Between the tropics, and

* Cullen's Works, by Thomson, vol. ii. p. 463.

during the prevalence of the trade-winds, when the weather was fine and clear, it was particularly mild. How much we are to attribute to the state of the atmosphere, I know not: one thing, however, will, I think, be granted,—that the constant succession of climate that is experienced during an Indian voyage, will rather have a salutary than an injurious effect on the disease.

“Should the use of the quinine in hooping cough prove efficacious in the hands of other practitioners, I shall feel gratified. It deserves, at least, a fair trial; and it is exempt alike from danger and inconvenience.”—*Med. Gaz.*

IV.

DIETETIC REGIMEN IN FRANCE AND ENGLAND.

WHAT is ordinarily called the influence of climate on the human species, ought, in our opinion, to include the effects of the customary aliment which necessarily varies with the geographical situation of each country. Thus, in the north, the stomach calls for animal food and the excitation of spirituous liquors; (?) while, in southern regions, bread and fruit only are used, and irritating drinks studiously avoided. The French are more sober than the Germans, because the mild temperature of their country enables them to substitute wine for the beer or distilled liquors of their neighbors. Under the burning sun of the Spanish peninsula, oranges, citrons, and a multitude of other fruits, abounding in juice, attain a maturity unknown in France; and the refreshing and delicious drinks of Spain render the inhabitants still

more averse to the effects of spirituous stimuli, while at the same time they care less for wine.

Madame de Staël attributes the severe character of the gloomy mythology of the northern nations, to the perpetual fogs and rigorous winters of their climate, and she is perhaps right to a certain extent; but are not these distinctive traits rather the effect of that dulness of intellect so evident in those persons habitually accustomed to the use of violent excitants?

The inhabitants of the south are, on the contrary, gay, lively and witty, independent of external objects, and much more disposed than the inhabitants of the north, to seize upon the frivolous and transitory pleasures which at every moment are presented to them. The Frenchman always evinces a disposition to enter into a hundred trifling projects of pleasure, which the Englishman pretends to despise, while he secretly envies that pliancy of disposition which the climate of his own country denies him: haughty and impatient, he only loses his heaviness when porter has rendered him inconsiderate and querulous. The extraordinary differences which we observe in the manner of living among the modern European nations, have been principally produced by the use of tea, coffee, sugar and tobacco: their introduction into common use is one of the most singular conquests of commerce. Who would have supposed, three centuries ago, that the products of China and the West Indies would one day become the habitual aliment of the inhabitants and the servants even of the rustic population?

The following table, drawn up

from authentic documents, may explain, to a certain extent, the difference of manners observable between the two greatest nations of Europe :—

Quantity of Sugar, Tea, etc., annually consumed in Great Britain and France.

	England.	France.
Sugar	lbs. 448,000,000	128,000,000
Tea	" 22,750,000	195,000
Coffee	" 8,100,000	20,100,000
Tobacco	" 16,900,000	7,200,000
Wine	galls. 6,210,000	700,000,000
Spir. liquors	" 28,020,000	5,700,000
Beer	" 420,000,000	155,000,000

But to be able to draw conclusions, we give, as follows, the relation which the consumption bears to the population of each country.

	<i>For one million.</i>	
	English.	French.
Sugar	lbs. 22,400,000	4,270,000
Tea	" 1,137,000	6,500
Coffee	" 405,000	670,000
Tobacco	" 845,000	273,000
Wine	galls. 310,000	23,300,000
Liquors	" 21,000,000	5,170,000

We have selected and translated the preceding article from one of our French medical journals, as calculated to interest the general reader. We hope to be able, on a subsequent occasion, to present a sketch of the proportion of the above articles consumed in the United States, accompanied with such reflections as naturally pertain to the subject of regimen.

We republish the above from the *Journal of Health*, a new work recently got up at Philadelphia. The object of this publication is the *prevention* of disease. It is designed as a *popular* rather than strictly professional work, and the two numbers already issued give fair promise of a highly respectable accession to our periodical literature. We heartily

wish it all the support it merits, and hope it will be far more *useful* than such works generally are. People always like to read and repeat good rules for the preservation of health ; but after all their admiration, they seldom put them in practice. A celebrated English Surgeon, who is no less familiar with the moral than the physical constitution of man, was, and probably now is, in the habit of concluding his course of lectures on Hygiene with the remark, that he had not only preached up these rules in a lecture-room, but been in the habit of repeating them in his private practice for the last twenty years, and during the whole of that period he could not say that a single individual had ever been persuaded to follow them.

V.

LITHOTOMY A DEUX TEMPS.

I WAS present when Mr. Lizars, of Edinburgh, performed the operation of lithotomy in this town, during the present summer. It was speedily and simply done. One calculus, the size of a pigeon's egg, was easily removed, as soon as an opening had been made into the bladder ; when another was discovered, somewhat larger than the first, but owing to the firm contraction of the fibres of the wounded bladder, it could not be readily removed at the time, and Mr. Lizars put his patient to bed, assuring his medical friends that all further attempts to remove the calculus would only tend to bruise and irritate the bladder and adjacent parts, and render inflammation more liable to occur. He was confident, he stated, from

experience, that on the third day from the operation the calculus would be easily removed, with scarcely any pain to the patient. Accordingly, on the day appointed, those who were present at the operation were in attendance, and saw Mr. Lizars gently introduce his finger into the wound, while the patient lay in bed, and then, guiding a scoop along the finger, bring out the calculus, which was as large as a chicken's egg, with all the ease imaginable. The patient, a gentleman of sixty-four years of age, had a quick recovery.

Mr. Lizars speaks highly of leaving the calculus till the third day, when it cannot be readily extracted at the time of the operation. By that time the suppurative process has commenced, and all the parts concerned are quite relaxed. This is the method introduced by the French surgeon Franco, as the *operation a deux temps*, and which has been condemned by some of our modern writers. Mr. Samuel Cooper strongly reprobates the practice of putting a patient to bed with a stone in his bladder; and advises that, rather than do this, we should make an opening adequate to its abstraction; or if this cannot be done, he tells us to break down the calculus and remove its fragments. If the long and constant irritation of a calculus, or calculi, has the effect of thickening the coats of the bladder, and diminishing its capacity; and if the cutting into that viscus causes its fibres to contract, and firmly grasp the calculus, as the uterus does its placenta when about to throw it off,—both of which occurrences experience shows us to be almost invariable attendants

on the disease, and the operation for its removal,—then all reiterated and painful attempts to remove and break down the calculus will not only be improper, but must also tend greatly to endanger the life of the patient. The cases in which Mr. Lizars has tried this operation *a deux temps* have been attended with the greatest success, and he has removed, on the third day after the operation, very large calculi with the utmost ease. He has hitherto made one or two gentle endeavors to bring away the calculus at the time of the operation, but if he does not readily succeed, the patient is put to bed. So convinced is this expert operator of the superiority of this plan, that he declared to his medical brethren, at the operation I have just mentioned, that were it his misfortune to be obliged to submit to the operation of lithotomy, he would not suffer the forceps or scoop to be used before the third day.—*Gibson's Medical Sketch of Dumfries-shire.*

VI.

LIGATION APPLIED TO THE AORTA.

The following case was communicated to a foreign Journal by Mr. J. H. James, a Surgeon at Exeter, England.

THE patient, a man aged 44, had an aneurism of the external iliac. The situation and size of the tumor seemed to preclude any attempt to tie it above; and I was induced to adopt the plan revived by Mr. Wardrop, of applying a ligature on the femoral below it. This was done on the 2d of June, and it was at first followed by a very sensible decrease in the tumor; but shortly the ground gain-

ed was again lost; and after considerable further enlargement, it became evident that the process of sloughing was about to take place. Under these circumstances, the patient's situation was fully and explicitly stated to him; and he, having judged that it was better to take the only chance that remained, than perish by bleeding; his nearest relations also having given their full and deliberate assent, I performed the operation alluded to on the 5th of July, nearly in the situation in which it was done by Sir Astley Cooper. Much difficulty was experienced from the great and very embarrassing protrusion of the bowels. The ligature, nevertheless, was applied, but the patient died in the evening, having suffered extreme pain in the aneurismal limb from the time the ligature was drawn.

On examining the body, it was found that the ligature had been applied to the aorta without including or injuring any other part. It was also ascertained that the probable reason of the failure of the first operation arose from a cause that could not have been foreseen; namely, that instead of the usual distribution of the arteries below, the external iliac, in this case, divided into two nearly equal trunks; and although the artery corresponding to the femoralis superficialis had been correctly tied, the channel through the other remained open. The weight of the tumor was nearly four pounds. I shall only further add, that circumstances prevented me from performing the operation from the side of the abdomen, or from tying the common iliac, which I should have preferred, if practicable.

BOSTON, TUESDAY, OCTOBER 13, 1829.

MASS. MED. COMMUNICATIONS.

WE have before us Vol. IV., Part VI., of the Medical Communications to the Massachusetts Medical Society. The numbers and titles of the papers are as follows:—

VIII. *Memoir of Edu. Aug. Holyoke, M.D., &c.*—The memoirs of Dr. Holyoke contain, as might be expected, few facts of interest, except those connected with the great age to which his life was prolonged. Indeed they present, through their whole details, scarce any occurrence sufficiently remarkable to be here designated. From the early age at which he commenced practice to the

day of his death, Dr. H. appears to have kept the even tenor of his way, in the honest and faithful discharge of his duties as a citizen and a physician. The principal means which contributed to his longevity, according to his biographer, were a good constitution and a cheerful temper. Even his temperance, in the present sense of the term, does not appear to have been unusually rigid. He indulged moderately in the pleasures of the table, took his fruit before dinner and his wine afterward, chewed his pigtail and smoked his pipe, kept away indigestion by good spirits and exercise, and removed the ill effects of occasional excess by subsequent privation. The best lesson of

Dr. Holyoke's life is taught by the place which his multiplied years and uniform excellence of character and conduct, had gained for him in the affections of his friends and townsmen; and this lesson is one by which we may all profit. "Truly the gray head is a crown of glory, if it be found in the way of righteousness."

The post-mortem appearances were not remarkable; but those connected with the anticipations he had himself expressed during life, derive considerable interest from that circumstance. For several of the last years of his life, Dr. H. was induced, by various circumstances, to suspect the existence of effusion within his cranium. His theory with regard to it was, that the size of the brain had gradually diminished, and that the space thus left had been filled by a fluid secreted between the dura and pia mater. The following extract from the minutes of the dissection will show to what extent this opinion was correct, and afford a proof of the soundness of his judgment in advanced life, on a point, perhaps, as difficult as any other for a physician to decide,—the diagnosis of his own case.

"On dividing and turning back the scalp, which was very thin and delicate, not a single drop of blood flowed. Although the utmost care was taken in sawing the cranium, as soon as the saw penetrated the inner table a transparent fluid began to flow, and on removing the calvarium, it was found that the dura mater was adherent to the bone nearly throughout its whole extent,—an alteration which did not seem to depend on disease,—the distinction between the two tables of the cranium entirely

obliterated, and the texture of the bone more dense than common. The tunica arachnoides was very firm and opaque; the veins beneath it were very small, containing but little blood. The brain was very firm and dense, and the convolutions very strongly marked; the sulci were wide and deep. The color was somewhat darker than common, and the whole feeling and appearance of the brain was as if it had been subjected to the action of alcohol. A small quantity of serous fluid was found beneath the tunica arachnoides. The cortical portion of the brain was extremely thin, being less than an eighth of an inch in thickness. In the ventricles nothing unusual was discovered. The pineal gland was extremely small, and contained no particle of gritty matter. The cerebellum was thought to be disproportionately small."

*IX. Dissertation on Intemperance, —to which was awarded the Premium offered by the Massachusetts Medical Society,—by WILLIAM SWEETSER, M.D.—*Dr. S. has considered very fully the effect of intemperance in the use of ardent spirits on the various organs and their functions. He examines the much agitated question as to the safety of omitting a stimulus of this kind after the system has been accustomed to its influence; and concludes that the cases are very rare in which any danger is to be apprehended from the change. Dr. S. reprobates the idea that intemperance arises out of physical malady, and is the means suggested by nature for its relief. No consideration of this kind should be admitted to lessen its moral tendency, or the disgrace and infamy with which we are wont to associate this degrading indulgence.

X. Observations on Abortion. By E. HALE, jr., M.D.—Dr. Hale remarks on the doubt which is often felt by the practitioner when called to a case of threatened abortion, to what extent treatment may be employed to prevent its occurrence, and at what stage of the process such treatment becomes useless and injurious. The practice adopted in this state of uncertainty, is of course likely to be vacillating. He quotes a remark of Denman, that in many cases where abortion has taken place, the foetus has been found, on examination, depraved in its structure, or otherwise unfit to come to maturity ; and it may be presumed that in most cases where this process takes place spontaneously, the uterus is unfit to afford, or the foetus to receive, the requisite support. In such cases it is obviously useless to interfere when the process has commenced. But such a state of things may be brought about by an improper mode of living, and may be kept up by habit ; and the province of judicious treatment is to prevent their recurrence by measures adopted in due season. Other causes, as various accidents, render immediate and active interference necessary. On the whole, however, the common error is to be found in pushing the preventive system too far, and continuing it longer than circumstances will justify. This observation is illustrated by a curious case, the details of which present several points of great interest.

XI. Memoir of William S. Williams, M.D. By STEPHEN W. WILLIAMS, M.D.—The distinguished sub-

ject of this memoir lived to the age of 66 years, and enjoyed not only a large share of professional practice in Deerfield, but the unabated respect and attachment of those with whom he was connected in the various occupations of life.

Dr. Williams was one of those physicians who studied medicine in the way most calculated to make his knowledge practically useful. After attending a number of cases in the day, he investigated, and made himself master of what others had known of such cases, in his retired hours of study. Thus did his practice and his reading come in direct aid of each other, as the diagram and the demonstration in a geometrical theorem.

His opinion on the subject of *depletion* may be gathered from the following extract :—

“ In acute diseases he bled with a bold and liberal hand, though he never could agree with many of his contemporaries in abstracting blood in the advanced stages of phthisis pulmonalis, and in many chronic complaints. He believed that the modern depleting practice, in such cases, was annually destroying thousands.”

XII. Observations on the Nature and Treatment of Cynanche Trahealis, by CHAS. MACOMBER.—Dr. M. has found great benefit, in cases of croup, from minute doses of calomel, given very frequently in some adhesive substance, so that the throat may be almost constantly lined with it. In this way he thinks the false membrane may be prevented from forming, or if formed, may be rendered less irritating. In the author's opinion, this remedy may be safely

trusted to without aid from blisters or sanguineous depletion.

XIII. Operation for Emphyma Encystis Steatoma, by JOHN C. WARREN, M.D. With a Lithographic Print.—This tumor is said to have been situated on the right cheek, though, we know not for what reason, the engraver has thought proper to place it on the *left*. Its weight is not mentioned. It was successfully extirpated by Dr. Warren.

ACTION OF POISONS ON THE LIVING BODY.

IT is a question of some interest, in a physiological view, whether poisons introduced into the system affect the brain through the medium of the circulation, or more directly by taking the course of the nerves leading from the part to which the poisonous substance is applied. The second of these opinions derives considerable support from the researches of Messrs. Morgan and Addison, of Guy's Hospital, London, who have jointly performed several experiments with a view to determine this point.—A history of these experiments and arguments is given in the Edinburgh Journal; and we propose to offer the reader some account of these, with such remarks as may be suggested.

The first and most general of these arguments is derived from the fact, that external applications to the nervous extremities, incapable, from their nature, of affecting the mass of blood, produce effects strikingly similar to those of poisonous agents. Such are extensive burns of the integument, which produce a comatose state, and gun-shot and other wounds,

which are followed by tetanus. As it must be supposed that these injuries act on the sentient extremities of the nerves, and that the impression is thence conveyed to the brain, a similar process may be supposed to occur when poisonous agents have been introduced into any part of the body, where they come in contact with like nervous extremities.

Another argument in favor of this theory, is derived from the very short space of time required for the more powerful poisons to produce their effects. Strychnia, when introduced by an external wound, has been known to act in fifteen seconds, a period apparently too short for the system to be affected through the medium of the circulation. If then, in this and similar instances, the effect is admitted to be produced by the intervention of the nerves, it is most conformable to the simplicity of nature to suppose that the medium is the same in other cases, whatever the interval required for the development of the poison.

But the most conclusive arguments in favor of nervous transmission, are derived, by Messrs. M. and A., from the results of their own experiments. If a poison acts by being carried in the blood to the brain, it ought to exert its effect much sooner on the arteries than the veins, and on the arteries above the heart than those below. That this is not the fact, was shown by introducing a powerful poison successively into the jugular vein of an animal, and its carotid and femoral arteries. The time required for the substance used to produce its effects, was found, in these

successive trials, to be nearly the same. A still more conclusive experiment on this point, was made by transmitting the blood of a poisoned animal through the artery of another. A communication was established between the right carotid of one dog, and the left of another; which was effected by dividing both vessels, and inserting the lower end of each in the upper end of the opposite. *Nux vomica* was then introduced into a wound in the back of one only. The inoculated animal was affected with tetanus in three minutes and a half, and died in four minutes more; while the other was never affected at all. Yet the blood of the former must have flowed into the artery of the latter; and the inference seems inevitable that the poison did not enter into the circulation.

It is a singular fact, and one which shows the difficulty attending these researches, that three distinguished physiologists should have separately performed experiments with a view to the solution of this very question, and have all arrived at a conclusion precisely opposite to the one just stated. Mr. BRODIE found that when the leg of an animal was firmly bound by a ligature, the sciatic nerve only being excluded, the effects of a powerful poison applied to a wound of the foot, were not experienced until the ligature was again loosened, so as to restore the circulation of the limb. The great experiment of MAGENDIE consisted in applying poison to the amputated limb of an animal, the circulation being kept up through the separated orifices of the artery and vein connected together

by quills. The *ipas* was introduced into a wound of the limb so prepared, and produced its effects in the usual time. And lastly, when Dr. BARRY applied cupping-glasses over a poisoned wound, the progress of the symptoms was arrested, although the animal was previously about expiring; a result which was naturally explained by supposing the process of absorption to have been interrupted, and the poison prevented from passing into the circulating fluid.

But Messrs. Morgan and Addison are by no means disposed to admit the conclusion, which these experiments so obviously suggest. To Mr. Brodie's experiment it is objected, first, that the want of circulation in the limb may have impaired the functions of the nerve itself; and secondly, that the nerves of sensation *may* possibly not be the same nerves which transmit the poisonous influence to the brain. The experiment of Magendie confessedly proves that poison may be conveyed in the circulating fluid; but it proves nothing more; for as soon as the blood has passed the artificial portion of the tube, the sentient extremities of the nerves, on the interior of the next portion, are ready to receive an impression, and to convey it with all despatch to the encephalon. Lastly, the effect of the cupping-glasses, which Dr. Barry supposes to have interrupted the process of absorption, *may* have been only to paralyse the sentient extremities of the nerves, and thus interfere with their function of carrying the morbid influence to the brain.

It must be confessed that these

pros and cons,—this array of conflicting facts and contradictory conclusions,—are calculated to produce in the reader no small degree of perplexity ; and to propose any theory which shall reconcile all these apparent contradictions, is no very easy task. *Non nostrum tantas componere lites.* Perhaps, however, the amount of absolute demonstration, on either side, is less than it would at first appear. The strongest direct evidence which is adduced, may be found in the experiment of the amputated limb on the one side, and that of the double union of the carotids on the other. To the former of these, Messrs. M. and A. answer, that when the blood has passed through the artificial tube, the impression is received by the nerves above and conveyed to the brain. This suggestion, while it does not impair the force of Magendie's experiment, really casts a shade of doubt on their own ; for if it were so, a similar effect ought to take place in the artery of the animal receiving the noxious blood from the other ; and they must still account, on their own theory, for the fact of the animal in question remaining unaffected.

Waving this objection, however, and with it excluding all doubt as to the former experiment, the latter still falls short of being absolutely conclusive. It seems impossible that the blood should have passed through the mutilated extremities of the vessels on one side, with the same facility that it traversed the perfect artery on the other ; nor, having done so, is it certain that being formed in the vessels of one animal, it ought to

have a like relation to the sensibility of the cerebrum in both. Admitting, however, all that the above experiment is intended to prove, namely, that the action of poison is occasionally conveyed independently of the circulation, to what other vehicle are we to refer its transmission ? The means of communication pointed out by our authors are the nerves ; not, however, those of sensation and motion, but another set provided particularly for this purpose, and communicating from all parts of the body directly with the brain, without the intervention of the spinal marrow. This liberal addition to the human structure, for such it seems to be, certainly detracts something from the simplicity of the theory, and is rather at variance with that singleness of contrivance in nature's works, which they are elsewhere disposed to regard as one of their chief beauties. The experiment which appears to have suggested this theory, and in which a poisonous substance acted in its usual time, notwithstanding the previous division of the spinal marrow, proves either that the effect was produced by absorption, or that the *modus operandi* is unknown to us. The supposition of a peculiar structure, by which the impression was conveyed to the brain, is just equivalent to the latter alternative.

If then poisonous substances affect the system through any medium except that of the circulation, the nerves seem to offer themselves as by far the most probable avenue ; and this supposition is confirmed, as is remarked by our authors, by the effect of mechanical and chemical agents in pro-

ducing tetanus and coma. In what proportion of cases the nerves transmit the poisonous influence, and whether the two modes often exist conjointly, are points not easy to decide. Where the effect is produced with great rapidity, it seems most natural to attribute its transmission to the nerves; but it is difficult, on the one hand, to say what is the shortest period sufficient for the process of absorption to take place, or on the other, to explain why the effect, if conveyed by the sentient nerves, should not, like the sensations themselves, be absolutely instantaneous.—The subject altogether is a curious one, and we hope to be able to report to our readers more ample results from its future investigation.

EXTIRPATION OF THE UTERUS.

This operation has been recently performed by a French Surgeon, M. Racimier. After the entire organ had passed from the patient into the hand of the operator, the epiploon appeared at the gap; on being pushed back, however, it retained its proper place. There was little hemorrhage, and this was arrested by a few ligatures. The operation, performed with the utmost coolness, occupied but twenty minutes. A convex blunt-pointed bistoury was the cutting instrument.

used by the Surgeon ; and at the date of the report, three days after the operation, the patient was doing well. The pain is said not to have exceeded that of an ordinary labor.

Debility of the Rectum.—A diminution of the power in the muscles which act on the rectum in expelling the faeces, is a complaint of very common occurrence, and being attended with the symptoms of *Stricture of the Rectum*, it is frequently mistaken for it. Several cases of this kind have lately come under our notice.—*Med. Gaz.*

Prussic Acid.—This article, rectified from calcined sulphate of zinc, has been found by M. Schütz to retain its qualities $3\frac{1}{2}$ years.

Premium.—The Editor of this paper is authorized, by a friend to the young men of our country, to give notice that a Premium of Fifty Dollars will be given for the best Essay, addressed to the young men of our Colleges and professional Seminaries, dissuading them from the use of wine, spirits and tobacco; the Essays to be examined and the Premium awarded by Rev. Drs. Woods, Edwards, and Cornelius, of Andover, Dr. J. C. Warren, of Boston, and Professor Silliman, Yale College, New Haven. The Essays must be sent, free of postage, to the Editor of the Journal of Humanity, Andover, Mass., by the 1st of January, 1830; each Essay to be accompanied with the name of the author, under seal.—*Journal of Humanity.*

WEEKLY REPORT OF DEATHS IN BOSTON, ENDING OCTOBER 2.

ADVERTISEMENTS.

A NATOMICO-SURGICAL DRAWINGS, and Descriptions of all the Surgical Operations, according to the most approved methods. By L. J. VON BIERKOWSKY. Translated from the German. In two volumes, and 570 drawings on 58 folio plates.

EXTRACTS FROM THE PROSPECTUS.

"Encouraged by the approbation of the Medical Profession, it is proposed to publish a work under the present title."

"This work contains 570 drawings, on 58 plates folio; to which is annexed, in two volumes 8vo. a concise explanation of each surgical operation. The plates exhibit not only the parts interested in operations, in their natural position and size, but, what is much more important, represent the different acts or stages of the whole operation, while others exhibit delineations of such morbid affections as consist in the change of the natural position, structure, color, &c. In order to afford the work at a moderate price, the plates will be Lithographic; and for the purpose of securing perfect accuracy, engagements have been entered into for their preparation in Berlin, under the especial direction of two of the most distinguished Professors of the University of that city."

A specimen of the translation, and the plates, is deposited for inspection at the Bookstore of CARTER & HENDEE, who receive subscriptions for the work.

Subscribers will be furnished with the work, and the first impressions of the plates, at the price of \$30.

The subscription list will be open until the 1st of November, 1829, after which period the price of the work will be raised to \$40.

P. S. For the accommodation of subscribers the work will be issued in five Numbers, at \$6 each, payable on delivery.

Sept. 29. 1829.

HARVARD UNIVERSITY.

MEDICAL LECTURES.

THE MEDICAL LECTURES in Harvard University will begin in the Massachusetts Medical College, Mason-street, Boston, ^{the} third WEDNESDAY in October next, the 21st, at nine o'clock, A. M. Anatomy and Surgery, by Dr. WARREN. Chemistry, Dr. WEBSTER.

Published weekly, by JOHN COTTON, at 184, Washington St. corner of Franklin St., to whom all communications must be addressed, *postpaid*.—Price three dollars per annum, if paid in advance, three dollars and a half if not paid within three months, and four dollars if not paid within the year. The postage for this is the same as for other newspapers.

Midwifery and Medical Jurisprudence, Dr. CHANNING. Materia Medica, Dr. BIGELOW. Theory and Practice of Physic, Dr. JACKSON.

Students attending the Medical Lectures are admitted, *without fee*, to the Surgical Operations and Clinical Practice of the Massachusetts General Hospital, during the course.

Aug. 4. W. CHANNING, *Dean*.
eoptOct21.

CARTER & HENDEE have just published,—The Constitution of Man, considered in Relation to External Objects. By GEORGE COMBE.

From the Preface to the American edition.

"Mr. Combe's work should be placed with those, of which so many within a few years have appeared, which are devoted to the all-absorbing topic of Education. It treats of moral, intellectual, and physical education. This is not formally done under so many distinct heads. But the whole course of reasoning of the author, and the whole array of all his illustrations, have it always obviously in view to show how the highest cultivation of each of these may be most surely brought about.

"The publishers have printed this edition from a belief that there is much in the work to interest the community.

"It has a novelty to reward the general inquirer, and it presents the well known under novel aspects. There is one class amongst us who may study it with much advantage. Scholars are referred to, a class here too small to form a distinct order with habits of their own, and who insensibly fall into those which, although not mischievous, to the multitude on the score of health, too often make ill health the portion of the sedentary student, and bring upon him premature decay.—To all classes it is recommended, and the various learning and acuteness of the author well fit him to write a book which addresses its instructions to the whole community."

Sept. 8.

A TREATISE on the Scrofulous Disease, by C. G. HUFELAND, Physician to the King of Prussia, &c., translated from the French of M. Bousquet, by Charles D. Meigs, M.D., is just received and for sale by CARTER & HENDEE.

Sept. 8.